REMARKS

After entry of this Amendment, claims 1-12, 54, 78, and 81-83 will be pending; claims 13-53 have been withdrawn in response to an election requirement; claims 55-77, 79, and 80 have been cancelled. New claims 81-83 have been added. Claims 1, 2, 11, and 12 have been amended to clarify the scope of the invention. Support for the claim amendment and new claims may be found throughout the Specification, at least in the originally filed claims and in paragraphs [0026], [0049], and [0060]. No new matter has been added.

Rejection of claims under 35 U.S.C. § 112

Claims 1-12, 54, and 78 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite. Applicants respectfully submit that the amendments made to independent claim 1 fully address this rejection.

Rejection of claims under 35 U.S.C. § 102

Claims 1, 3, 4, 5, 8, 9, and 54 are rejected under 35 U.S.C. § 102(e) as anticipated by U.S. Patent No. 6,515,335 to Christiansen et al. ("Christiansen"). Christiansen appears to disclose methods of forming SiGe layers by deposition of Ge or SiGe islands and intermixing with Si layers by annealing. *See* Christiansen, abstract.

However, Christiansen is silent about the uniformity of threading dislocations in her layers, disclosing only global threading dislocation densities. *See* Christiansen, column 7, lines 8-12. Christiansen does not disclose a threading dislocation density that varies across the surface of a layer by no more than an order of magnitude, as recited in amended independent claim 1. The instant claims recite a uniform threading dislocation density that is preferable to "non-uniform nucleation of dislocations at relatively few heterogeneous sites on the surface," for attaining low threading dislocation and dislocation pile-up densities. *See* Specification, paragraph [0078]. In contrast, the non-homogeneity that the instant application teaches against lies at the heart of Christiansen's approach. Christiansen's layer fabrication method involves the formation of localized regions of highly lattice-mismatched SiGe, followed by annealing; thus, it is likely that her layer will exhibit a threading dislocation density that does vary greatly across a surface thereof. *See* Christiansen, Figures 1A and 1B and related text.

For at least this reason, Applicants respectfully submit that independent claim 1, as well as claims dependent therefrom, are allowable over the cited art.

CONCLUSION

In light of the foregoing, Applicants respectfully submit that all claims are now in condition for allowance.

Applicants believe that no fees are necessitated by the present Response. However, in the event that any additional fees are due, the Commissioner is hereby authorized to charge any such fees to Deposit Account No. 07-1700.

If the Examiner believes that a telephone conversation with Applicants' attorney would expedite allowance of this application, the Examiner is cordially invited to call the undersigned.

Respectfully submitted,

Date: May 8, 2007
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